10/01



#

OIPE

RAW SEQUENCE LISTING DATE: 09/05/2002 TIME: 10:51:28 PATENT APPLICATION: US/10/050,686A Input Set : A:\HMV07001.APP.txt Output Set: N:\CRF4\09052002\J050686A.raw 3 <110> APPLICANT: GOLDBERG, ALFRED L. 4 GOMES, MARCELO D. 5 LECKER, STEWART H. JAGOE, R. THOMAS 8 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATMENT OF MUSCLE WASTING 11 <130> FILE REFERENCE: HMV-070.01 13 <140> CURRENT APPLICATION NUMBER: 10/050,686A C--> 14 <141> CURRENT FILING DATE: 2002-08-13 16 <150> PRIOR APPLICATION NUMBER: 60/262,090 17 <151> PRIOR FILING DATE: 2001-01-16 ENTERED 19 <160> NUMBER OF SEQ ID NOS: 3 21 <170> SOFTWARE: PatentIn Ver. 2.1 23 <210> SEO ID NO: 1 24 <211> LENGTH: 2067 25 <212> TYPE: DNA 26 <213> ORGANISM: Mus sp. 28 <400> SEQUENCE: 1 29 cocacgcgtc cggctaagag caggcggctc ttggcggcaa caaagagacg gggcagcggc 60 30 cogggataaa tactgogoto gggoagoogo toagoattoo cagagtoagg aggogacott 120 31 coccaacgoo tgogocootg tgagtgoaag gatocooggg cocaccoagg atcogoagoo 180 32 ctccacacta gttgacccac tettgteeeg gtegeegeet gegtegttee ecageatett 240 33 occaacgogo ogcataccot gggcaagcoa ggcoggttoo tggctgtoaa toogtoocgt 300 34 ccgtcggtcg cgtccgcgct ctgtaccatg ccgttccttg ggcaggactg gcggtccccg 360 35 ggccagaget gggtgaagac ggcggacgge tggaageget tettggatga gaaaagegge 420 36 agcttcgtga gcgacctcag cagttactgc aacaaggagg tatacagtaa ggagaatctg 480 37 ttcagcagcc tggactacga cgtcgcagcc aagaagagaa agaaagacat tcagaacagc 540 38 aaaaccaaaa ctcagtactt ccatcaagaa aagtggatct atgttcacaa aggaagtacg 600 39 aaggagegee atggatactg taetttgggg gaagetttea acagaetgga etteteaaet 660 40 gccattctgg attccagaag atttaactac gtggtccggc tgttggagct gatagcaaag 720 41 tcacagetca catecetgag tggcategee caaaagaact tcatgaatat tttggaaaaa 780 42 gtggtactga aagtccttga agaccagcaa aacattagac taataaggga actactccag 840 43 accetetaca cateettatg tacaetggte caaagagteg geaagtetgt getggteggg 900 44 aacattaaca tgtgggtgta tcggatggag acgattctcc actggcagca gcagctgaac 960 45 aacattcaga tcaccaggcc tgccttcaaa ggcctcacct tcactgacct gcctttgtgc 1020 46 ctacaactga acatcatgca gaggctgagc gacgggcggg acctggtcag cctgggccag 1080 47 gcagccccag acctgcatgt gctcagtgag gaccggctac tgtggaagag actctgccag 1140 48 taccacttct cagagaggea gattcgcaag cgtttgatct tgtctgacaa agggcagctg 1200

49 gattggaaga agatgtattt taagettgta egatgttace caagaagaga geagtatggg 1260 50 gteaccetge agetttgeaa acactgeeae atteteteet ggaagggeae tgaccateeg 1320 51 tgeacggeea acaacceaga gagetgetee gteteacttt ecceteaaga etttateaat 1380 52 ttgtteaagt tetgaataat eccageacae gacaacaett eagaaggett etaattggat 1440 53 ggetgggagt tegggacaet teatttgtaa atagtgtaca ttttaageat tggettgaaa 1500

RAW SEQUENCE LISTINGPATENT APPLICATION: US/10/050,686A

DATE: 09/05/2002
TIME: 10:51:28

Input Set : A:\HMV07001.APP.txt

Output Set: N:\CRF4\09052002\J050686A.raw

```
54 ctgcggggga tacgtcattg aggagacgtt ggcggggaag agatgcagtt gccgatggaa 1560
55 atttacaaat gtgaattcca catgagaact ggtacagaaa agcagaaata ctgtaaatag 1620
56 actttttatt ttccctaacg atttgcaagc aagactataa aggcaagaac tctatgtcag 1680
57 ccatggaaac ggagtcctct tgagttccct aggaagaaaa aggcaaaaag ctcaaaaaca 1740
58 agatggaaca ctctgtttac aatgtgaaaa tgttgttaag acaaaaataa ggaagaagga 1800
59 agatgaacgc tgtcattgag aaacccttgg gctttgggtt tggattcggg gtttgttttc 1860
60 agcaggocaa gaagtatate cacetgaaat etgeaeggge ttaagteett ateetatgaa 1920
61 gatgccacac aatggtctac ctctaaaagc atagcgtgtt ctctggcaac atactttatc 1980
62 tgggaggcaa tgtctgtgtt tcatgtaagt tctatactct gtgaagtgat ctaagatggg 2040
63 aaggctgtta ggaaaaaaa aaaaaaa
66 <210> SEQ ID NO: 2
67 <211> LENGTH: 355
68 <212> TYPE: PRT
69 <213> ORGANISM: Mus sp.
71 <400> SEQUENCE: 2
72 Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Ser Trp Val
                                        10
75 Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Ser
                20
                                    25
78 Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Val Tyr Ser Lys
                                40
81 Glu Asn Leu Phe Ser Ser Leu Asp Tyr Asp Val Ala Ala Lys Lys Arg
                                                60
84 Lys Lys Asp Ile Gln Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln
                        70
                                            75
87 Glu Lys Trp Ile Tyr Val His Lys Gly Ser Thr Lys Glu Arg His Gly
                                        90
                    85
90 Tyr Cys Thr Leu Gly Glu Ala Phe Asn Arg Leu Asp Phe Ser Thr Ala
               100
                                   105
93 Ile Leu Asp Ser Arg Arg Phe Asn Tyr Val Val Arg Leu Leu Glu Leu
                               120
96 Ile Ala Lys Ser Gln Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn
99 Phe Met Asn Ile Leu Glu Lys Val Leu Lys Val Leu Glu Asp Gln
                        150
                                            155
102 Gln Asn Ile Arg Leu Ile Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser
                    165
                                        170
105 Leu Cys Thr Leu Val Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn
                180
                                    185
108 Ile Asn Met Trp Val Tyr Arg Met Glu Thr Ile Leu His Trp Gln Gln
                                200
109
            195
111 Gln Leu Asn Asn Ile Gln Ile Thr Arg Pro Ala Phe Lys Gly Leu Thr
114 Phe Thr Asp Leu Pro Leu Cys Leu Gln Leu Asn Ile Met Gln Arg Leu
115 225
                                            235
117 Ser Asp Gly Arg Asp Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu
118
                    245
                                        250
120 His Val Leu Ser Glu Asp Arg Leu Leu Trp Lys Arg Leu Cys Gln Tyr
```

265

121

RAW SEQUENCE LISTING DATE: 09/05/2002 PATENT APPLICATION: US/10/050,686A TIME: 10:51:28

Input Set : A:\HMV07001.APP.txt

Output Set: N:\CRF4\09052002\J050686A.raw

123 His Phe Ser Glu Arg Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys 275 280 126 Gly Gln Leu Asp Trp Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr 127 295 129 Pro Arg Arg Glu Gln Tyr Gly Val Thr Leu Gln Leu Cys Lys His Cys 130 305 310 315 132 His Ile Leu Ser Trp Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn 325 330 133 135 Pro Glu Ser Cys Ser Val Ser Leu Ser Pro Gln Asp Phe Ile Asn Leu 340 345 136 138 Phe Lys Phe 139 355 142 <210> SEQ ID NO: 3 143 <211> LENGTH: 1112 144 <212> TYPE: PRT 145 <213> ORGANISM: Artificial Sequence 147 <220> FEATURE: 148 <223> OTHER INFORMATION: Description of Artificial Sequence: WD-40 motif 150 <220> FEATURE: 151 <221> NAME/KEY: MOD_RES 152 <222> LOCATION: (1)..(94) 153 <223> OTHER INFORMATION: Any amino acid, wherein the region represents 154 6-94 residues 156 <220> FEATURE: 157 <221> NAME/KEY: MOD_RES 158 <222> LOCATION: (97)..(137) 159 <223> OTHER INFORMATION: Any amino acid, wherein the region represents 23-41 residues 162 <220> FEATURE: 163 <221> NAME/KEY: MOD_RES 164 <222> LOCATION: (140)..(233) 165 <223> OTHER INFORMATION: Any amino acid, wherein the region represents 166 6-94 residues 168 <220> FEATURE: 169 <221> NAME/KEY: MOD_RES 170 <222> LOCATION: (236)..(276) 171 <223> OTHER INFORMATION: Any amino acid, wherein the region represents 172 23-41 residues 174 <220> FEATURE: 175 <221> NAME/KEY: MOD_RES 176 <222> LOCATION: (279)..(372) 177 <223> OTHER INFORMATION: Any amino acid, wherein the region represents 178 6-94 residues 180 <220> FEATURE: 181 <221> NAME/KEY: MOD_RES 182 <222> LOCATION: (375)..(415) 183 <223> OTHER INFORMATION: Any amino acid, wherein the region represents 23-41 residues 184

186 <220> FEATURE:

RAW SEQUENCE LISTING DATE: 09/05/2002 PATENT APPLICATION: US/10/050,686A TIME: 10:51:28

Input Set : A:\HMV07001.APP.txt

Output Set: N:\CRF4\09052002\J050686A.raw

```
187 <221> NAME/KEY: MOD_RES
  188 <222> LOCATION: (418)..(511)
  189 <223> OTHER INFORMATION: Any amino acid, wherein the region represents
           6-94 residues
 192 <220> FEATURE:
  193 <221> NAME/KEY: MOD_RES
  194 <222> LOCATION: (514)..(554)
  195 <223> OTHER INFORMATION: Any amino acid, wherein the region represents
  196
           23-41 residues
  198 <220> FEATURE:
  199 <221> NAME/KEY: MOD_RES
  200 <222> LOCATION: (557)..(650)
  201 <223> OTHER INFORMATION: Any amino acid, wherein the region represents
        6-94 residues
  204 <220> FEATURE:
  205 <221> NAME/KEY: MOD_RES
  206 <222> LOCATION: (653)..(693)
  207 <223> OTHER INFORMATION: Any amino acid, wherein the region represents
  208
        23-41 residues
  210 <220> FEATURE:
  211 <221> NAME/KEY: MOD_RES
  212 <222> LOCATION: (696)..(789)
  213 <223> OTHER INFORMATION: Any amino acid, wherein the region represents
        6-94 residues
  216 <220> FEATURE:
  217 <221> NAME/KEY: MOD_RES
  218 <222> LOCATION: (791)..(832)
219 <223> OTHER INFORMATION: Any amino acid, wherein the region represents
         23-41 residues
  222 <220> FEATURE:
  223 <221> NAME/KEY: MOD_RES
  224 <222> LOCATION: (835)..(928)
  225 <223> OTHER INFORMATION: Any amino acid, wherein the region represents
  226
           6-94 residues
  228 <220> FEATURE:
  229 <221> NAME/KEY: MOD_RES
  230 <222> LOCATION: (931)..(971)
  231 <223> OTHER INFORMATION: Any amino acid, wherein the region represents
  232
           23-41 residues
  234 <220> FEATURE:
  235 <221> NAME/KEY: MOD_RES
  236 <222> LOCATION: (974)..(1067)
  237 <223> OTHER INFORMATION: Any amino acid, wherein the region represents
  238
           6-94 residues
  240 <220> FEATURE:
  241 <221> NAME/KEY: MOD_RES
  242 <222> LOCATION: (1070)..(1112)
  243 <223> OTHER INFORMATION: Any amino acid, wherein the region represents
  244
           23-41 residues
```

RAW SEQUENCE LISTING DATE: 09/05/2002 PATENT APPLICATION: US/10/050,686A TIME: 10:51:28

Input Set : A:\HMV07001.APP.txt

Output Set: N:\CRF4\09052002\J050686A.raw

	246	<220	0> FI	EATU	RE:															
	247	247 <223> OTHER INFORMATION: This sequence may include 4-8 repeats of the											the	fragm	ent					
	248														,					
		<400> SEQUENCE: 3																		
W>							Xaa	Xaa	Yaa	Yaa	Xaa	Хаа	Yaa	Yaa	Yaa	Yaa	Yaa			
., ,	252	1		*****		5	2.00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,	,,,,,,	10	,,,,,,	21.44	21.00	muu	15	nuu			
W>			Yaa	Yaa	Yaa	_	Yaa	Yaa	Yaa	Yaa		Yaa	Vəə	Yaa	Vaa		Vaa			
W>	255	Add	Add	Add	20	Add	лаа	Add	Add	25	Add	лаа	лаа	Add	30	Add	Add			
F.F &		V	V	Vaa		V	V	V	V		V	V	Voo	V		V	V			
M>		Add	Add		Ydd	Add	Add	Add		Add	Ydd	Yqq	Yqq		Yqq	Add	Add			
	258			35					40					45						
M>		xaa		xaa	xaa	Xaa	xaa		xaa	xaa	Xaa	xaa		Xaa	Xaa	Xaa	Xaa			
	261		50					55					60							
M>			Xaa	Xaa	Xaa	Xaa		Xaa	Xaa	Xaa	Xaa		Xaa	Xaa	Xaa	Xaa				
-	264	65					70					75					80			
M>		Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Gly	His			
	267					85					90					95				
M>	269	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa			
-	270				100					105					110					
W>	272	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa			
	273			115					120					125						
W>	275	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Trp	Asp	Xaa	Xaa	Xaa	Xaa	Xaa			
	276		130					135					140							
W>	278	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa			
		145					150					155					160			
W>	281	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa			
-	282					165					170					175				
~W		Xaa	Xaa	Xaa	Xaa		Xaa	Xaa	Xaa	Xaa		Xaa	Xaa	Xaa	Xaa		Xaa			
	285				180					185	•••			••••	190					
W>		Xaa	Xaa	Xaa		Xaa	Xaa	Xaa	Xaa		Хаа	Xaa	Xaa	Xaa		Xaa	Xaa			
	288			195					200					205						
W>		Yaa	Yaa		Yaa	Yaa	Yaa	Yaa		Yaa	Yaa	Yaa	Yaa		Yaa	Yaa	Yaa			
" ,	291	1144	210	,,,,,,	,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1144	215	,,,,,,	,,,,,,	*****	,,,,,,	220	<i></i>	,,,,,,	nuu	21.00			
W>		Vaa		V = =	Vaa		Yaa		Vaa	Yaa	G1 v	Ti o		Vaa	Vaa	Vəə	Vaa			
W>	294		Add	лаа	Add	лац	230	лац	Add	Add	GTÄ	235	Add	Add	Add	Add	240			
W			Vaa	V	V	Vaa		Vaa	Vaa	Vaa	Vaa		Vaa	V	Vaa	Vaa				
M>	297	Aaa	AGG	Aaa	лаа	245	Aaa	Aaa	Aaa	Aaa	250	Aaa	Aaa	Aaa	Aaa	255	Add			
Tut.		V	V	V	Vaa		V	Vaa	Vaa	V		V	Vaa	Vaa	Va.		Von			
W>		Add	Add	Add		Add	Add	Add	Add		Add	Add	Add	лаа		Aaa	Aaa			
	300		••	··	260	 -		17	1 2	265	77	 .	W	Tr	270	***	W			
W>		хаа	хаа		xaa	Trp	Asp	хаа		хаа	хаа	хаа	хаа		xaa	хаа	хаа			
	303			275					280					285						
W>															Xaa	Xaa	Xaa			
	306																			
M>			Xaa	Xaa	Xaa	Xaa		Xaa	Xaa	Xaa	Xaa		Xaa	Xaa	Xaa	Xaa				
	309						310					315					320			
M>		Xaa	Xaa	Xaa	Xaa		Xaa	Xaa	Xaa	Xaa		Xaa	Xaa	Xaa	Xaa		Xaa			
	312					325					330					335				
M>	314	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa			
-	315				340					345					350					
W>	317	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa			

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 09/05/2002
PATENT APPLICATION: US/10/050,686A TIME: 10:51:29

Input Set : A:\HMV07001.APP.txt

Output Set: N:\CRF4\09052002\J050686A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:3; Xaa Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22
 Seq#:3; Xaa Pos. 23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41
 Seq#:3; Xaa Pos. 42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60
 Seq#:3; Xaa Pos. 61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79
 Seq#:3; Xaa Pos. 80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,97,98,99,100
 Seq#:3; Xaa Pos. 101,102,103,104,105,106,107,108,109,110,111,112,113,114
 Seq#:3; Xaa Pos. 115,116,117,118,119,120,121,122,123,124,125,126,127,128
 Seq#:3; Xaa Pos. 129,130,131,132,133,134,135,136,137,140,141,142,143,144
 Seq#:3; Xaa Pos. 145,146,147,148,149,150,151,152,153,154,155,156,157,158
 Seq#:3; Xaa Pos. 159,160,161,162,163,164,165,166,167,168,169,170,171,172
 Seq#:3; Xaa Pos. 173,174,175,176,177,178,179,180,181,182,183,184,185,186
 Seq#:3; Xaa Pos. 187,188,189,190,191,192,193,194,195,196,197,198,199,200
 Seq#:3; Xaa Pos. 201,202,203,204,205,206,207,208,209,210,211,212,213,214
 Seq#:3; Xaa Pos. 215,216,217,218,219,220,221,222,223,224,225,226,227,228
 Seq#:3; Xaa Pos. 229,230,231,232,233,236,237,238,239,240,241,242,243,244
 Seq#:3; Xaa Pos. 245,246,247,248,249,250,251,252,253,254,255,256,257,258
 Seq#:3; Xaa Pos. 259,260,261,262,263,264,265,266,267,268,269,270,271,272
 Seq#:3; Xaa Pos. 273,274,275,276,279,280,281,282,283,284,285,286,287,288
 Seq#:3; Xaa Pos. 289,290,291,292,293,294,295,296,297,298,299,300,301,302
 Seq#:3; Xaa Pos. 303,304,305,306,307,308,309,310,311,312,313,314,315,316
 Seq#:3; Xaa Pos. 317,318,319,320,321,322,323,324,325,326,327,328,329,330
 Seq#:3; Xaa Pos. 331,332,333,334,335,336,337,338,339,340,341,342,343,344
 Seq#:3; Xaa Pos. 345,346,347,348,349,350,351,352,353,354,355,356,357,358
 Seq#:3; Xaa Pos. 359,360,361,362,363,364,365,366,367,368,369,370,371,372
 Seq#:3; Xaa Pos. 375,376,377,378,379,380,381,382,383,384,385,386,387,388
 Seq#:3; Xaa Pos. 389,390,391,392,393,394,395,396,397,398,399,400,401,402
-- Seq#:3; Xaa Pos. 403,404,405,406,407,408,409,410,411,412,413,414,415,418
 Seq#:3; Xaa Pos. 419,420,421,422,423,424,425,426,427,428,429,430,431,432
 Seq#:3; Xaa Pos. 433,434,435,436,437,438,439,440,441,442,443,444,445,446
 Seq#:3; Xaa Pos. 447,448,449,450,451,452,453,454,455,456,457,458,459,460
 Seq#:3; Xaa Pos. 461,462,463,464,465,466,467,468,469,470,471,472,473,474
 Seq#:3; Xaa Pos. 475,476,477,478,479,480,481,482,483,484,485,486,487,488
 Seq#:3; Xaa Pos. 489,490,491,492,493,494,495,496,497,498,499,500,501,502
 Seq#:3; Xaa Pos. 503,504,505,506,507,508,509,510,511,514,515,516,517,518
 Seq#:3; Xaa Pos. 519,520,521,522,523,524,525,526,527,528,529,530,531,532
 Seq#:3; Xaa Pos. 533,534,535,536,537,538,539,540,541,542,543,544,545,546
 Seq#:3; Xaa Pos. 547,548,549,550,551,552,553,554,557,558,559,560,561,562
 Seq#:3; Xaa Pos. 563,564,565,566,567,568,569,570,571,572,573,574,575,576
 Seq#:3; Xaa Pos. 577,578,579,580,581,582,583,584,585,586,587,588,589,590
 Seq#:3; Xaa Pos. 591,592,593,594,595,596,597,598,599,600,601,602,603,604
 Seq#:3; Xaa Pos. 605,606,607,608,609,610,611,612,613,614,615,616,617,618
 Seq#:3; Xaa Pos. 619,620,621,622,623,624,625,626,627,628,629,630,631,632
 Seq#:3; Xaa Pos. 633,634,635,636,637,638,639,640,641,642,643,644,645,646
 Seq#:3; Xaa Pos. 647,648,649,650,653,654,655,656,657,658,659,660,661,662
```

RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/10/050,686A

DATE: 09/05/2002 TIME: 10:51:29

Input Set : A:\HMV07001.APP.txt

Output Set: N:\CRF4\09052002\J050686A.raw

Seq#:3; Xaa Pos. 663,664,665,666,667,668,669,670,671,672,673,674,675,676 Seq#:3; Xaa Pos. 677,678,679,680,681,682,683,684,685,686,687,688,689,690 Seq#:3; Xaa Pos. 691,692,693,696,697,698,699,700,701,702,703,704,705,706 Seq#:3; Xaa Pos. 707,708,709,710,711,712,713,714,715,716,717,718,719,720 Seg#:3; Xaa Pos. 721,722,723,724,725,726,727,728,729,730,731,732,733,734 Seq#:3; Xaa Pos. 735,736,737,738,739,740,741,742,743,744,745,746,747,748 Seq#:3; Xaa Pos. 749,750,751,752,753,754,755,756,757,758,759,760,761,762 Seq#:3; Xaa Pos. 763,764,765,766,767,768,769,770,771,772,773,774,775,776 Seq#:3; Xaa Pos. 777,778,779,780,781,782,783,784,785,786,787,788,789,792 Seq#:3; Xaa Pos. 793,794,795,796,797,798,799,800,801,802,803,804,805,806 Seq#:3; Xaa Pos. 807,808,809,810,811,812,813,814,815,816,817,818,819,820 Seq#:3; Xaa Pos. 821,822,823,824,825,826,827,828,829,830,831,832,835,836 Seq#:3; Xaa Pos. 837,838,839,840,841,842,843,844,845,846,847,848,849,850 Seq#:3; Xaa Pos. 851,852,853,854,855,856,857,858,859,860,861,862,863,864 Seq#:3; Xaa Pos. 865,866,867,868,869,870,871,872,873,874,875,876,877,878 Seq#:3; Xaa Pos. 879,880,881,882,883,884,885,886,887,888,889,890,891,892 Seq#:3; Xaa Pos. 893,894,895,896,897,898,899,900,901,902,903,904,905,906 Seq#:3; Xaa Pos. 907,908,909,910,911,912,913,914,915,916,917,918,919,920 Seq#:3; Xaa Pos. 921,922,923,924,925,926,927,928,931,932,933,934,935,936 Seq#:3; Xaa Pos. 937,938,939,940,941,942,943,944,945,946,947,948,949,950 Seq#:3; Xaa Pos. 951,952,953,954,955,956,957,958,959,960,961,962,963,964 Seq#:3; Xaa Pos. 965,966,967,968,969,970,971,974,975,976,977,978,979,980 Seq#:3; Xaa Pos. 981,982,983,984,985,986,987,988,989,990,991,992,993,994 Seq#:3; Xaa Pos. 995,996,997,998,999,1000,1001,1002,1003,1004,1005,1006 Seq#:3; Xaa Pos. 1007,1008,1009,1010,1011,1012,1013,1014,1015,1016,1017 Seq#:3; Xaa Pos. 1018,1019,1020,1021,1022,1023,1024,1025,1026,1027,1028 Seq#:3; Xaa Pos. 1029,1030,1031,1032,1033,1034,1035,1036,1037,1038,1039 Seq#:3; Xaa Pos. 1040,1041,1042,1043,1044,1045,1046,1047,1048,1049,1050 Seq#:3; Xaa Pos. 1051,1052,1053,1054,1055,1056,1057,1058,1059,1060,1061 Seq#:3; Xaa Pos. 1062,1063,1064,1065,1066,1067,1070,1071,1072,1073,1074 Seq#:3; Xaa Pos. 1075,1076,1077,1078,1079,1080,1081,1082,1083,1084,1085 Seq#:3; Xaa Pos. 1086,1087,1088,1089,1090,1091,1092,1093,1094,1095,1096 Seq#:3; Xaa Pos. 1097,1098,1099,1100,1101,1102,1103,1104,1105,1106,1107 Seq#:3; Xaa Pos. 1108,1109,1110

•

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/050,686A

DATE: 09/05/2002 TIME: 10:51:29

Input Set : A:\HMV07001.APP.txt

Output Set: N:\CRF4\09052002\J050686A.raw

```
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
  L:251 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
  L:254 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:16
  L:257 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:32
  L:260 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:48
  L:263 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:64
  L:266 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:80
  L:269 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:96
  L:272 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:112
  L:275 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:128
  L:278 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:144
  L:281 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:160
L:284 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:176
L:287 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:192
  L:290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:208
  L:293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:224
  L:296 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:240
  L:299 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:256
  L:302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:272
  L:305 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:288
  L:308 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:304
  L:311 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:320
  L:314 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:336
  L:317 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:352
  L:320 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:368
 _L:323 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:384
  L:326 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:400
  L:329 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:416
  L:332 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:432
  -L:335 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:448
  L:338 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:464
  L:341 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:480
  L:344 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:496
  L:347 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:512
  L:350 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:528
  L:353 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:544
  L:356 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:560
  L:359 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:576
 L:362 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:592
  L:365 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:608
  L:368 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:624
  L:371 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:640
  L:374 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:656
  L:377 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:672
  L:380 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:688
  L:383 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:704
  L:386 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:720
  L:389 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:736
```

, 100

VERIFICATION SUMMARY

DATE: 09/05/2002

PATENT APPLICATION: US/10/050,686A

TIME: 10:51:29

Input Set : A:\HMV07001.APP.txt

Output Set: N:\CRF4\09052002\J050686A.raw

L:392 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:752 L:395 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:768 L:398 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:784 STATISTICS SUMMARY

DATE: 09/05/2002

PATENT APPLICATION:

US/10/050,686A

TIME: 10:51:29

Input Set : A:\HMV07001.APP.txt

- Output Set: N:\CRF4\09052002\J050686A.raw

Application Serial Number: US/10/050,686A

Alpha or Numeric or Xml: Numeric

Application Class:

Application File Date: 08-13-2002

Art Unit: OIPE

Software Application: PatentIN2.1

Total Number of Sequences: 3

Total Nucleotides: 2067
Total Amino Acids: 1467
Number of Errors: 0
Number of Warnings: 70
Number of Corrections: 1

MESSAGE SUMMARY

А

271 C: 1 (Current Filing Date differs)
341 W: 70 ((46) "n" or "Xaa" used)